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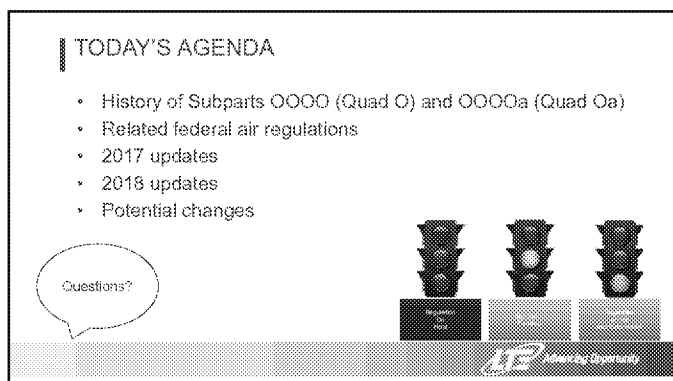
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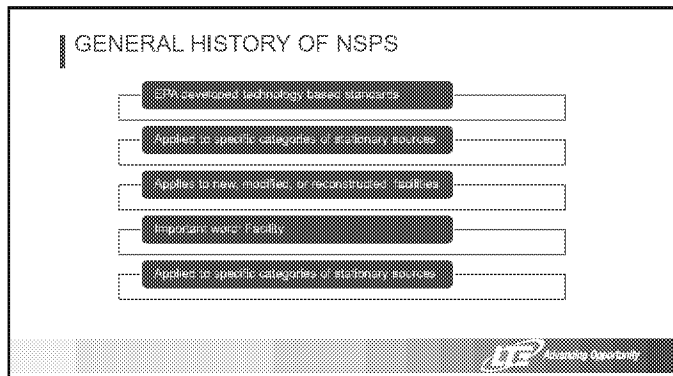
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## QUAD O

- August 16, 2012 -- Published in Federal Register
- Final rule effective 60 days thereafter
- Applicable to sites constructed, re-constructed or modified on or after August 23, 2011 and on or before September 18, 2015
- Applicable to oil and gas production industry
- Regulates Volatile Organic Compounds (VOCs) and Sulfur Dioxide (SO<sub>2</sub>) from various emission sources



FEDERAL REGISTER  
the Daily Journal of the United States Government



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## QUAD O CONTINUED -- O & G SEGMENTS

Crude Petroleum  
and Natural Gas  
Extraction

Natural Gas  
Liquid Extraction

Natural Gas  
Distribution

Pipeline  
Distribution of  
Crude Oil

Pipeline  
Transportation  
of Natural Gas



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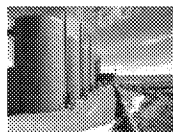
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## QUAD O -- APPLICABLE FACILITIES

- Gas wells
- Centrifugal and reciprocating compressors
- Pneumatic controllers
- Storage vessels with emissions > 6 tons per year (TPY) per vessel
- Onshore natural gas processing plants
- Sweetening plants



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## QUAD O – RECORDKEEPING AND REPORTING

- Recordkeeping
  - Required per facility (emission source)
- Annual reporting of data
  - Applicable to well pad
  - Includes recordkeeping data specific to applicable facilities
  - Report due 90 days after the end of the reporting period ( $\leq$  365 days)
  - Confusion due to multiple wells on a pad, possibly drilled over a 6 month or longer period of time



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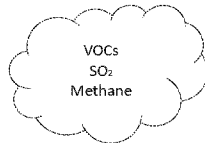
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## QUAD Oa

- June 3, 2016 – Published in Federal Register
- Final rule effective 60 days thereafter
- Applicable to sites constructed, re-constructed or modified on or after September 19, 2015
- Applicable to oil and gas production industry
- Regulates Volatile Organic Compounds (VOCs) and Sulfur Dioxide (SO<sub>2</sub>) from various emission sources, and
- Greenhouse Gases (GHG)
  - Methane (CH<sub>4</sub>)



FEDERAL REGISTER  
The daily journal of the United States Government



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## QUAD Oa – APPLICABLE FACILITIES

- Gas and oil wells
- Centrifugal and reciprocating compressors
- Pneumatic controllers
- Storage vessels with emissions  $>$  6 tons per year (TPY) per vessel
- Onshore natural gas processing plants
- Sweetening plants
- Gas-actuated pneumatic pumps
- Fugitive emissions
  - Leak Detection And Repair (LDAR)
  - Well sites
  - Compressor stations
- Closed vent systems
- Professional Engineer (PE)



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## QUAD Oa -- RECORDKEEPING AND REPORTING

- Recordkeeping
  - More onerous (according to industry) when compared to Quad O
  - Includes many new requirements for:
    - Fugitive emissions
    - Obtaining a statement from a PE that the closed vent system is adequately sized
    - Obtaining a statement from a PE that a pneumatic pump cannot be controlled
- Annual reporting of data
  - Applicable to well pad
  - Includes recordkeeping data specific to applicable facilities
  - Report due 90 days after the end of the reporting period ( $\approx$  365 days)
  - Confusion due to multiple wells on a pad, possibly drilled over a 6 month or longer period of time



## SIMILARITIES

Emission Sources

Controls VOCs and SO<sub>2</sub>

Recordkeeping and Reporting



## DIFFERENCES

### QUAD O

- Applicability Dates
  - On or after August 23, 2011
  - Before September 18, 2013
- Focused on VOCs and SO<sub>2</sub>
- Limited to gas wells
- Does not include fugitive emissions requirements for production sites, including LDAR
- No certification requirements for closed vent systems or pneumatic pumps

### QUAD Oa


- Applicability Dates
  - On or after September 18, 2013
- In addition to VOCs and SO<sub>2</sub>, GHG emissions (Methane) are part of the focus on reducing emissions
- Includes both gas and oil wells
- Includes fugitive emissions requirements for production sites, including LDAR
- Includes certification requirements for closed vent systems and pneumatic pumps
- Additional recordkeeping and reporting for well production facilities



**SUMMARY — QUAD O AND Oa**

- Overview of Quad O and Oa
- Applicable segments
- Applicable facilities
- Recordkeeping and reporting

Questions?



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**RELATED FEDERAL AIR REGULATIONS**

- Information Collection Request (ICR) for the oil and natural gas industry
  - Collect information to pursue penalties and/or develop regulations for existing industries
  - November 10, 2016 — issued to operators
  - Response by operators required
- Control Technique Guidelines (CTGs) for the oil and natural gas industry
  - October 20, 2016 — issued by EPA
  - Reasonably Available Control Technology (RACT)
  - Provides recommendations to states and local agencies to comply with RACT requirements in nonattainment areas for their local jurisdictions



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**2017 UPDATES**

- March 2<sup>nd</sup> — EPA withdrew the 2016 information collection request for the oil and gas industry
- April 18<sup>th</sup> — EPA announces intent to reconsider aspects of Quad Oa
  - Fugitive emissions monitoring (LDAR)
  - Well site pneumatic pump standards
  - Certification of closed vent systems by a PE



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### 2017 UPDATES CONTINUED

- May 26<sup>th</sup> – EPA issued a 90-day stay of Quad Oa
- June 2<sup>nd</sup> – Published in the Federal Register
- August 31<sup>st</sup> – End of the 90-day stay



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### 2017 UPDATES CONTINUED

- June 1<sup>st</sup> – Request to withdraw the stay by various environmental groups
- June 12<sup>th</sup> – 2-year stay of Quad Oa proposed by EPA



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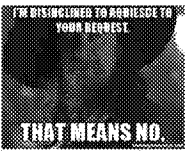

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### 2017 UPDATES CONTINUED

- July 3<sup>rd</sup>
- U.S. Court of Appeals for the District of Columbia (D.C.) Circuit
- Vacated EPA's 90-day stay
- Court ruled the EPA's suspension of the rule was "unlawful", "arbitrary", and "capricious"



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2017 UPDATES CONTINUED

- July 7<sup>th</sup>
- EPA responded and moved the court to recall its mandate
- EPA requested 52 days to comply with the Court's decision





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2017 UPDATES CONTINUED

- July 13<sup>th</sup>
- U.S. Court of Appeals for the D.C. Circuit rejects EPA Administrator's request for an extension
- Ultimately, the Court recalled the mandate for 14 days





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2017 UPDATES CONTINUED

- July 27<sup>th</sup>
- The Court's mandate becomes effective
- EPA accepts the decision and moves forward with the existing public comment periods for the 2-year stay





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## 2017 UPDATES CONTINUED

- November 1<sup>st</sup>
  - EPA issued a Notice Of Data Availability (NODA) in support of the staying of certain requirements under Quad Oa
  - EPA solicited comments on two focus areas
    - Legal authority for the stay
    - Technological, resource, and economic challenges with implementing the portions of the regulation to be stayed



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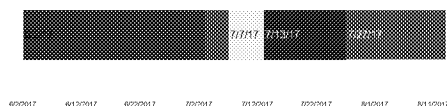
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## SUMMARY OF 2017 CHANGES

Quad Oa History



Questions?



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## 2018 UPDATES

- February 23<sup>rd</sup>
- EPA amended portions of the fugitive emissions requirements
  - Removed requirement for leaking components to be repaired during unplanned or emergency shutdowns
  - Updated monitoring survey requirements for well sites operating on Alaska's Northern Slope



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## 2018 UPDATES

- February 23<sup>rd</sup>
- EPA began a public comment period for the potential withdrawal of the Control Technique Guidelines (CTGs) proposed in 2016



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## POTENTIAL CHANGES

- Rescind the rule in its entirety
- Fugitive emissions monitoring
  - Reduce frequency of inspections
- Allow for flexibility to develop and implement new technologies
- Reinstatement an original part of the rule, exempting low production wells from inspections
- PE certification of closed vent systems
- Revise to be less onerous
- Pneumatic pumps
- Clarify greenfield versus brownfield
- Recordkeeping and reporting
  - Frequency of reporting excessive
  - Recordkeeping requirements onerous



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## FOLLOW-UP

- EPA's oil and gas website:  
<http://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry>
- Federal Register:  
<http://www.federalregister.gov>
- Wait and see



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QUESTION AND ANSWERS?

Thank you!

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[cpowell@ltenv.com](mailto:cpowell@ltenv.com)  
303-962-5555



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